Tuberculosis

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AN

INAUGURAL ESSAY,

ON

HÆMOPTYSIS.

By JOSEPH BLOODGOOD,

OF ALBANY, NEW YORK.

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY.

18052.

Urget necessitas, non scribendi cacœthes.

GREY.

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AN

INAUGURAL DISSERTATION,

FOR

THE DEGREE

OF

DOCTOR OF MEDICINE,

SUBMITTED TO

THE EXAMINATION

OF THE

REV. JOHN ANDREWS, D. D. PROVOST, (ProTem.)

THE

TRUSTEES AND MEDICAL PROFESSORS

OF THE

UNIVERSITY OF PENNSYLVANIA,

On the 21st day of April, 1806.

TO

BENJAMIN DEWITT, M. D.

OF

ALBANY, *NEW-YORK.*

THIS ESSAY,

IS DEDICATED

AS A

TESTIMONY OF ESTEEM,

BY HIS

SINCERE FRIEND,

AND FORMER PUPIL,

THE AUTHOR

AN

INAUGURAL ESSAY, &c.

When we reflect on the size of the blood vessels entering the lungs, and on their minute ramifications, being delicately dispersed on the surface of the air-cells, and involved in a cellular substance that can admit of but little resistance, the frequency of hæmorrhagies from that viscus is not to be wondered at. If from any affection of the chest, blood is brought up by coughing, there can be but little doubt that it proceeds from the lungs: there are however cases to be mentioned hereafter, in which it will be necessary to take other circumstances into consideration to enable us to determine whether it proceeds from the fauces, the adjoining cavity of the nose, the stomach, or the lungs.

In the production of Hæmoptysis, its causes are divided into remote, predisposing, and exciting. (I consider the disease itself the proximate.) Of the first, or remote, may be ranked,

1. Mal-conformation of the thorax, derived from ancestors, or acquired by disease.

2. Sedentary occupations.

3. Intemperance in eating or drinking.

4. Suppression of accustomary evacuations, as of the menses, hæmorrhoids, &c.

5. Lifting heavy weights, or using great bodily exertions.

6. The debilitating passions of the mind.

7. Catarrh.

8. External violence.

9. Repelled eruptions, and

10. Sudden growth, about the age of puberty.

Under the second head I have only to mention *debility;* it being the predisposing cause of all diseases. That it is instrumental in the formation of this disease, I infer—

1. From the causes that have been enumerated: all of which tend either directly, or indirectly, to produce it.

2. From its occurring at those periods, in which, (from exertions of body or mind) there is a greater prostration of strength.

3. From its making its appearance at a time when the lungs are in a passive state, as when the patient is sitting, walking, or even during sleep.

4. I infer it from persons leading sedentary lives, as studious men, women, and tradesmen, whose occupations admit of but little exercise, being most subject to its attacks.

5. And laſtly, From its being a symptom of Plague, Yellow-fever, Small-pox, &c.

Exciting causes are,

1. All the causes that have been enumerated under the firſt class—

2. Sudden vicissitudes from heat to cold, and vice versa.

3. Stimulating passions.

4. Diminution of the weight of the atmosphere, especially when concurring with exercise, as in ascending a mountain.

5. Violent exertions of the lungs, as in hallooing, singing, or laughing: and,

6. Great heat, or pressure from clothes.

SYMPTOMS.

In this disease, as in many others, we find two states, which are termed by Dr. Cullen, the active, and passive; but which I shall stile "state of *great* and *weak* morbid action," as being terms less exceptionable than those of the Edinburgh Professor. Its first state is usually ushered in by coldness of the extremities, pain in the back and loins, costiveness, flatulency, and lassitude; a sense of heat, pain, and weight in the chest; difficulty of breathing, and frequently a saltish taste is perceived in the mouth. After these symptoms have continued for a longer or shorter time, a tickling sensation is experienced in the trachea, attended with a cough, bringing up blood of a florid and frothy appearance, producing a noise similar to air passing through a fluid. The blood brought up, in this manner, is generally, at first, in small, but in some cases from the very commencement it appears in large quantities: not preceded by the premonitory symptoms; appears suddenly, and returns at stated periods. The pulse in this state of the disease is frequent, quick, and tense;

sometimes full and round, without tension, or with a tense, but small stroke.

If the disease has continued for any length of time, or the discharge been profuse, the symptoms of weak morbid action make their appearance: the pulse becomes small, and frequent; the difficulty of breathing continues to an alarming degree, the strength of the body becomes greatly diminished, the face pale, the extremities cold, syncope, tremors, convulsions, and lastly death.

Blood thrown out by the mouth is not always derived from the lungs; but sometimes it proceeds from the fauces, posterior nares, and stomach. When from the fauces or posterior nares, 'tis for the most part brought out by hawking; and by inspection, we have it often in our power to detect the bleeding vessel. Hæmorrhagies from the fauces are a more rare occurrence than those from the lungs, and are seldom attended with fever. When they proceed from the ſtomach, they may be known from the absence of the symptoms mentioned above, and by being attend-

ed with pain, anxiety, and a sense of weight referrible to that viscus: from the dark and grumous appearance of the discharge, and from its being mixed with alimentary matter.

METHOD OF CURE.

The remedies I shall divide into such as are proper——

1st. For its state of great morbid action; and

2d. Into such as are proper for its state of weak morbid action.

The remedies under the first division are such as act by abstracting stimuli, and thereby decreasing the irregular or convulsive action of the blood-vessels, and such as divert morbid action from the lungs to a part less essential to life, viz. bloodletting, cathartics, emetics, nitre, common salt, saccharum saturni, cold applications, blisters, and the sedative passion of fear. And—1st

OF BLOOD-LETTING.

In the use of this noble remedy we should be

governed by the pulse, the cronometer of the system. If it imports to the fingers any degree of tenſion or fulness, small, and repeated bleedings ought to be our chief dependence. For its efficacy, and the extent to which it may be used, the case of Dr. Smith, President of Princeton College is a striking example. In the space of ten days, by two and thirty bleedings, he lost TWO GALLONS OF BLOOD*.

The superiority of blood-letting over other depleting remedies in cases of great morbid action, is fully illustrated by professor Rush, in his defence of blood-letting.†

CATHARTICS

" Are useful in discharging acrid fæces, and bile, from the bowels in fevers. They act, moreover, by creating an artificial weak part, and thus invite morbid excitement from the blood-vessels to the bowels. They likewise

* Phil. Med. Mus. No. 1. vol. 2. † Med. Inqui. vol. 4.

leſſen the quantity of blood, by preventing freſh accession of chyle being added to it." Dr. Hoffman,† relates the case of a young clergyman, of a plethoric habit, who having exerted his voice, was seized with a ſpitting of blood, and was relieved by the usual remedies: in a few days the disease returned; several remedies were used with some success, though the discharge did not cease: on eating the root of the sow-bread he was seized with violent gripes, which ending in a copius diarrhœa, put an end to the pulmonary hæmorrhage.

EMETICS.

" They discharge offensive and irritating matters from the ſtomach; they lessen the fulness of the blood-vessels, by determining the serum of the blood through the pores; and they equalize the excitement of the system, by inviting its excessive degrees from the blood-vessels to the stomach and muscles."

Dr. Cullen (upon the authority of Bryan

† Pract. vol. 1.

Robinson of Dublin) exhibited emetics in several cases of hæmoptysis with advantage. In one it increased the hæmorrhage to such an alarming degree as to deter him from making further trials of them. Ipecacuanha, when combined with opium, Dr. Barton informs us, is a valuable remedy, not only in this species of hæmorrhagies; but also in hæmorrhages from the uterus, bowels, &c.

Dr. Mosely* relates several cases in which his vitriolic solution, administered in nauseating doses, every eight hours, produced the happiest effects.

NITRE.

Dr. Dickson† when speaking upon nitre in the cure of hæmoptysis observes, that the good effects of this remedy have astonished him, and that he can depend upon it in that disease, as much as *bark* in the cure of intermittents. The most commodious method of exhibiting

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* Dis. of Trop. Clim.

† Med. observ.

it, he found was in the following electuary—

Sal Nitre oz. ss.
Con : Ros : oz. iv.

The size of a large nutmeg was directed to be taken, four, six, or eight times a day, according to the urgency of the case. This remedy was attended with the like success in the hands of Dr. Gibbons. It operates not only by the nausea it produces, but when given in powder and dissolving in the stomach, by the cold it generates, it lessens the energy of the circulation, like cold water internally taken, or externally applied.

COMMON SALT.

For the publicity of this remedy, we are indebted to Dr. Rush : it is given with the like success in hæmoptysis of great and weak morbid action. As soon as possible after the appearance of the hæmorrhage, a tea or table spoonful of clean fine salt should be swallowed: this quantity is generally found sufficient to check it. The dose ought to be repeated daily for three or four days. If the above

quantity should be found insufficient, the dose must be increased to two table spoonfuls.

SACCHARUM SATURNI.

Sir George Baker* asserts, that there is no medicine more powerful in restraining hæmorrhagies than sugar of lead.

Dr. Reynolds of London† used it with great success in the case of a young gentleman in hæmoptysis, in the following form.

℞ Sacch: Satur gr: j.
Conserv: Ros; gr. jv.
Tinct. Theb. gutt iij. *M.*

The dose was increased in two days to Sacch: saturni gr. j.ss; Tinct. Theb. gutt. v. Before taking the above prescription he had been bled several times; nitre and other neutrals had been administered freely, and an abstemious diet observed: his pulse 108 in a mi-

* Med. Trans. Vol. I. † Med. Trans. Vol. III.

nute ; in four days his pulse became soft, less full, and beat 70 in a minute; his hæmorrhage ceased on the fourth day after taking the pills. Dr. Barton, in a communication to Dr. Simmes, relates a case of hæmoptysis " which " threatened the speedy death of his patient. " I gave, (says he) " the sugar of lead, in do- " ses of six grains every two hours, for several " hours together. I ascribe the compleat re- " covery of my patient, solely to this treat- " ment. This was one of the first cases in " which I exhibited the medicine, and I should " not have ventured on such doses (for I had " been taught to believe, that the preparations " of lead ought always to be exhibited with " the greatest circumspection,) had I not " thought the patient irrecoverable by any o- " ther means. I had no cause, however, to " regret the employment of the lead ; for it " produced not the least inconvenience." The following case communicated to me by Dr. Rogers, being a very important one, I shall insert it here, as an additional proof of the efficacy of our remedy. " On the 18th of Jan- " uary, 1804, I visited W—W—, who had " been subject to formidable attacks of this

" disease. He had on former occasions, been
" successfully treated by Dr. Barton, who had
" likewise visited him at the commencement
" of the present attack. But that eminent
" physician having himself become indisposed,
" referred his patient to me. Several days
" elapsed before I was sent for, in consequence
" of the patient's anxious desire to be treated
" by the physician who had formerly saved
" his life."

" Upon seeing the patient, I was almost de-
" terred from making any effort to relieve
" him; so desperate did the case appear. I
" was informed by his family, that he eject-
" ed, by coughing and gently forcing the air
" from his lungs, at least two pints of blood
" daily, since the 15th. And it was supposed
" that during the twenty four hours preceding
" my visit, no less than four pints of florid
" blood were discharged from his lungs. We
" may perhaps make some allowance for ex-
" aggeration. Indeed some of his friends as-
" serted that a much larger quantity had been
" lost.

" He had not slept for three days and nights, " nor was he able to respire in a horizontal " posture. He had no appetite—his strength " was rapidly declining—and it was expected that he could not live many hours."

" I need not be prolix in relating his treat- " ment. He took four grains of the Saccha- " rum Saturni, every six hours, uncombined " with opium, or any other active substance. " When he had used a scruple of the medicine, " he was able to lie a few hours with considera- " ble ease; and the hæmorrhage was so far re- " strained, that the expectorated mucus was " barely streaked with blood. Opiates were " now employed to remove his cough, and " other remedies were prescribed to restore his " strength, which was accomplished in a few " days."

" On the 27th he was seized with cholic: " this effect of the lead would not have taken " place, had it been administered in conjunc- " tion with opium; but this affection did not " prove troublesome. I have never observed " lead, when combined with opium, in the

" manner directed by Dr. Barton, to pro-
" duce cholic."

Dr. Barton, whose practice with this article has, I believe, been more extensive than that of any other physician in Philadelphia, and to whom we are indebted for many useful observations on its power, recommends it as a *valuable* and *powerful* remedy in uterine and other hæmorrhagies, and observes that it may be exhibited, with perfect safety, in both states of the disease, and that in at least one hundred and fifty cases of hæmorrhagies in which he had administered the remedy, there was not one instance in which it produced any *serious inconvenience.* He always combines it with a small quantity of opium, and supposes that it may be given in larger doses with, than without, that narcotic.

DIGITALIS.

Dr. Ferriar has the highest opinion of this article in the cure of the disease under consideration. He has used it with great success. To

his expererience may be added that of Dr. Barton, and Dr. Currie, of Liverpool.

COLD APPLICATIONS.

Dr. Ghise of Cremona, relates the case of a young man, who had a frequent spitting of blood, and a violent fever; after trying repeated bleedings, and other remedies, without success, he gave him water rendered extremely cold, with ice, ordering him to take a cup of it every quarter of an hour at leaſt; in a few hours the spitting of blood ceased, the fever and cough abated, and in a few days he entirely recovered.

The late Dr. Bond cured himself of an alarming hæmoptysis by applying a sheet dipped in vinegar and water, to his naked body.

Van Swieten also mentions the case of a person cured by clothes wetted with cold wine and water, and applied to the scrotum.

Dr. Hoffman has seen several dangerous cases yield to cold water alone.

BLISTERS,

From their efficacy in diseases, after the system has been reduced to what is happily called the "*blistering point*" by blood-letting and other depleting remedies, have deservedly obtained a conspicuous place in the *materia medica*. They have been found very efficacious in this disease by diverting morbid excitement from the lungs, to a part less essential to life. They are alike effectual, whether applied to the extremities, or chest.

FEAR,

From its effects in decreasing the action of the heart, and arteries. From this passion interrupting the flow of blood from a vein in the operation of phlebotomy, the propriety of encouraging it is evident. "We should be "cautious (as Dr. Falconer justly observes) "how we attempt to raise the spirits, or agi-

" tate the mind of those labouring under a " present dangerous hæmorrhage. Low " spirits and a certain degree of despondency " for a time, may be of service in restraining " the impetus of the blood, and allowing a " thrombus to be formed. On this account " we should not be too forward with assur- " ances of safety, but rather leave them in " some degree of doubt and apprehension. " Much injury has, I think, been done in " pulmonary consumption attended with " hæmoptoe, by assurances of safety by well " meaning but imprudent friends; they tend to " stimulate the spirits, already too much agi- " tated, and of consequence to accelerate the " circulation and discharge of blood."

During the use of the above remedies, rest of body, and more especially of the lungs ought to be strictly enjoined. The diet should consist of vegetables. Meats of all kinds " are sacred and ought not to be touched." We now proceed to the remedies proper—

2. For its state of weak morbid action.

Under his head may be included all such remedies as, by " exciting action in the sto- " mach, bowels, brain, nerves, muscles, and

" skin, equalize the excitement of the whole " system, and thereby indirectly destroy a " weak, but morbid action in blood-vessels, " by imparting to them more vigorous and " healthy action." Among the first to be mentioned under this head is *Opium*. In the use of this remedy we should be regulated by the pulse, as much as in the use of the lancet: by it we discover the point at which stimuli are proper, and when they ought to be repeated. To be serviceable, a second dose should always be given before the first has had time to lose its influence, or its effects wear away; the quantity also should be carefully accommodated to the state of the system.

Bark will be found a valuable remedy in this state of the disease. Its various substitutes, as the cornus florida, sericea, &c. may also be used here.

Wine is a very agreeable and manageable stimulant, and one that should be employed when this class of medicines is indicated, and when it does not prove unfriendly to the stomach.

Porter. This is highly entitled to our no-

tice, as being a liquid which the stomach retains when all others are offensive to it. Of this we have a convincing proof in the case of Dr. Smith, formerly alluded to; he made it his sole drink for several months, without receiving from it the slightest inconvenience.

Acids. These may be administered, with a view to their tonic operation, in combination with some of the remedies above mentioned, with great advantage; here the mineral acids appear preferable.

Much advantage will be derived from a light and cordial diet. White meats, oysters, &c. are most proper. These should be rendered agreeable to the palate by the addition of condiments, the patient here, as in convalescence from other low states of disease, should eat in small quantities, and his meals be often repeated, that an equable excitement may be preserved in the stomach, and the system not suffer from the alternate plenitude and inanition of that viscus.

FINIS.